

What is claimed is

1. A two-component system with controllable pot life,  
curing via a redox initiator system and composed  
5 of the following components:

component A  
from 0.8 to 70% by weight, based on the entirety  
of polymers and monomers (component A and  
10 component B), of a polymer or polymer mixture  
prepared via aqueous emulsion polymerization and  
comprising from 0.01 to 30% by weight of a  
component of a redox initiator system mainly  
absorbed in the polymer particles or on the  
15 polymer particles,

component B  
from 30 to 99% by weight, based on the entirety of  
polymers and monomers (A and B), of at least one  
20 ethylenically unsaturated monomer,

component C  
from 0.01 to 5% by weight, based on the entirety  
of polymers and monomers (A and B), of at least  
25 one component of a redox initiator system which  
forms the partner of the initiator component  
absorbed in the particles of A, and

component D  
30 from 0 to 800% by weight, based on the entirety of  
polymers and monomers (A and B), of fillers,  
pigments, and other auxiliaries.

2. The composition as claimed in claim 1, composed of  
35 the following components:

component A  
from 3 to 60% by weight, based on the entirety of

polymers and monomers (component A and component B), of a polymer or polymer mixture prepared via aqueous emulsion polymerization and comprising from 0.01 to 30% by weight of a component of a redox initiator system mainly absorbed in the polymer particles or on the polymer particles,

component B

from 40 to 97% by weight, based on the entirety of polymers and monomers (A and B), of at least one ethylenically unsaturated monomer,

component C

from 0.01 to 5% by weight, based on the entirety of polymers and monomers (A and B), of at least one component of a redox initiator system which forms the partner of the initiator component absorbed in the particles of A, and

component D

from 0 to 800% by weight, based on the entirety of polymers and monomers (A and B), of fillers, pigments, and other auxiliaries.

3. The composition as claimed in claim 1, composed of the following components:

component A

from 5 to 60% by weight, based on the entirety of polymers and monomers (component A and component B), of a polymer or polymer mixture prepared via aqueous emulsion polymerization and comprising from 0.01 to 30% by weight of a component of a redox initiator system mainly absorbed in the polymer particles or on the polymer particles,

component B

from 40 to 95% by weight, based on the entirety of

polymers and monomers (A and B), of at least one ethylenically unsaturated monomer,

component C

5 from 0.01 to 5% by weight, based on the entirety of polymers and monomers (A and B), of at least one component of a redox initiator system which forms the partner of the initiator component absorbed in the particles of A, and

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component D

from 0 to 800% by weight, based on the entirety of polymers and monomers (A and B), of fillers, pigments, and other auxiliaries.

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4. The composition as claimed in claim 1, composed of the following components:

component A

20 from 10 to 50% by weight, based on the entirety of polymers and monomers (component A and component B), of a polymer or polymer mixture prepared via aqueous emulsion polymerization and comprising from 0.01 to 30% by weight of a component of a redox initiator system mainly absorbed in the polymer particles or on the polymer particles,

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component B

30 from 50 to 90% by weight, based on the entirety of polymers and monomers (A and B), of at least one ethylenically unsaturated monomer,

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component C

35 from 0.01 to 5% by weight, based on the entirety of polymers and monomers (A and B), of at least one component of a redox initiator system which forms the partner of the initiator component absorbed in the particles of A, (component C) and

35

component D

from 0 to 800% by weight, based on the entirety of  
polymers and monomers (A and B), of fillers,  
5 pigments, and other auxiliaries.

5. The composition as claimed in claim 1,

characterized in that

10 component A a polymer composed of

a) from 5 to 100% by weight, based on component A,  
of a monofunctional (meth)acrylate monomer  
15 whose water-solubility is < 2% by weight at  
20°C

b) from 0 to 70% by weight, based on component A,  
of a monomer copolymerizable with the  
20 (meth)acrylate monomer

c) from 0 to 5% by weight, based on component A,  
of a polyunsaturated compound, and

25 d) from 0 to 20% by weight, based on component A,  
of a polar monomer whose water-solubility is  
> 2% by weight at 20°C,

and that component B of 2-(2-(2-ethoxyethoxy)-  
30 ethoxy)ethyl methacrylate, tetrahydrofuryl  
methacrylate or 1,4-butanediol dimethacrylate, and  
that component C comprises, as peroxide, dibenzoyl  
peroxide or dilauryl peroxide, and comprises, as  
accelerator component, N,N-dimethyl-p-toluidine or  
35 N,N-bis(2-hydroxyethyl)-p-toluidine.

6. The use of a composition as claimed in any of  
claims 1 to 5 as adhesive.

7. The use of a composition as claimed in any of claims 1 to 5 as casting resin.
- 5 8. The use of a composition as claimed in any of claims 1 to 5 as floor coating.
9. The use of a composition as claimed in any of claims 1 to 5 as composition for reactive plugs.
- 10 10. The use of a composition as claimed in any of claims 1 to 5 as dental composition.
- 15 11. The use of a composition as claimed in any of claims 1 to 5 as sealing composition.